ULT II

Overdrawn

[illegible] minister and one teacher who seem to understand the problems facing the community. "[illegible] minister, then, is forced to provide a religion to the public while he [illegible] religion for himself which he knows to be consistent with Christianity." 311

[illegible] IS THAT THE 'SOCIAL RELIGION' [illegible] WITH CHRISTIANITY, would be quite remarkable if the preacher [illegible]izing dissonance, as described.

PLAIN MISSTATED

[illegible] effort of farmers to [illegible] these causes fought about the [illegible] the state's interest to [illegible] a patterned adv[illegible] [illegible] the group's position [illegible]

ULT II

[illegible]

[illegible] a sense then, the opposition to [illegible] not consist of dissident groups within the community [illegible] while [illegible] of [illegible] society which impinges on [illegible] his attempts to deal with such larger trends [illegible] hard-boiled realistic politician state [illegible] adversary the major currents of change in [illegible] that affect the small [illegible] seen in the [illegible] political realists become [illegible] romanticists and [illegible] romanticism [illegible] it is [illegible] keep the [illegible] [illegible] actioning [illegible] [illegible] processes and which it operates. [illegible]

~~[illegible]~~ 'ro[illegible]' not the other [illegible].

ULT II

"Objectively [illegible] they do not [illegible] a belief in their [illegible], in almost every sphere of their lives they find their inherited beliefs and traditions at odds with the [illegible] and social environment. [illegible] unwilling to recognize the [illegible] in face of larger events and [illegible] self-avoidance and self-[illegible] threats [illegible], if recognized, would [illegible] and social existence. Instead of facing the issues, they [illegible] and modify their behavior in some cases and [illegible] traditional patterns in other cases. They do this [illegible] without conscious recognition of the basic problem.

ULT II

SC OVERDRAWN

[illegible] formation, "the rural surrender:" consists of:

(1) Adjusting to outside ~~political~~ administrative rulings, subsidies, standards.

"However, at almost every point [illegible] seemingly [illegible] of political [illegible] the village and town [illegible] adjust their action." 99[2]

[illegible] surface peak) 100[2]

[illegible] becoming psychologically depend[illegible] incapable [illegible]

ULT II

IT'S A SECONDARY ANALYSIS and they [illegible] ran away.

ULT II

Whole thing seems to be a SECONDARY ANALYSIS

(do I know where the primary-analysis stuff is kept?!)

ULT II

DERIVATIVE study — virtually 'secondary analysis.'

⟹ Prevented counting of [illegible], [illegible] data [illegible]

MISSING DATA suggs they lost 'access to [illegible] when they went to P.R. [illegible]

ULT II [illegible] — 15-2 [illegible]

The [illegible]

Weightless Zs like this! may be worse than none. Lost to spread rotation, boiling out of the machine unconnected.

ULT II

[illegible]

Size ↓ Volt ↓ Stability ↓ Income ↓ etc!

i.e. ~~[illegible]~~ CROSS-TABS OF 'CLASS' X 'NUMBER [illegible] 'NUMBER THAT WORK', though [illegible] obviously be in the data [illegible]

ULT II

CROSS-TAB ON RELIGION X CLASSES

(i.e. Methodism, Baptism serve also as Psych outlet?)

ULT II

[illegible] they might well have also tabulated [illegible] the data) by VOTING-AGE MEMBERS OF HOUSEHOLD, education, etc.

ALSO ⚹ (but no measure of 'goodness of fit' of later definition.)

Don't forget Media Borough Council.

ULTT — Parochial liberalism —

Village board don't have big vocabularies or a sense of technicalities for governing, 115E; moreover, their ~~business~~ outlook, warped by "business or some other specialization," (115-6,) prevents their acquiring a perspective broad enough to encompass "the range of political sentiments represented in the community." 116A
Thus they are "incompetent" (116B.)

#00589

ULTT

— EVERYBODY ON PROJECT — WERE FOR EBULLIENT ACTION

(first material)

$250 donated to community club by Cornell project. JSI 48[3]

One of the main political points: UNTRUE that "highly unrepresentative"

3,16C ~~3,16~~ // (11) ULTT

(12)

ULTT

As noted by Goodchild & Harding (JSI, 53n,) Vidich & B. seem to [illegible] for the shooting of problems [illegible] or personal arrangements [illegible] govt "disgraceful."

ULTT ☆

Claim to show their domination of [illegible] Town [illegible]

ULTT

The Professionals & Industrialists are the only Liberals and there is no adaptation to their wants. However, they are 9% of population, while the ~~Neo-entrepreneurs are 13% (52.1)~~

(Full description of the [illegible] insurgents, not too sympathetic [illegible] 2)

Don't forget Media Borough Council.

#00589

ULTT — Parochial liberalism —

Village board don't have big vocabularies or a sense of technicalities for governing, 115E; moreover their ~~business~~ outlook, warped by "business or some other specialization," (115-6,) 'prevents their acquiring a perspective broad enough to encompass the range of political sentiments represented in the community." 116A

Thus they are "incompetent" (116B.)

#005

ULTT — EVERYBODY ON PROJECT WERE FOR EBULLIENT ACTION

(the material)

$250 donated to community club by Cornell project. JSI 48[3]

(12)

One of the main political points: UNTRUE that 'highly unrepresentative'

3,16C ~~3,16~~ // (11) ULTT

ULTT

As noted by Goodchilds & Harding ~~[illegible]~~ (JSI, 53n,) Vidich & B[illegible] seem to c[illegible] the ~~[illegible]~~ shouting of problems [illegible] or personal embarrassments [illegible] just "disgraceful."

ULTT ☆

Claim to show that domination of V[illegible] businessmen & Town[illegible] by prosperous [illegible] wrongful etc.

"THEY SEEM TO WANT [illegible] THE MINORITY PROFESSIONAL [illegible] not the idiosyncratic decadent of's or Shock people who repudiate it.)

Just what's lost? Show removal [illegible] from C[illegible] [illegible] [illegible]

ULTT

The Professionals & Industrials are the only Liberals and there is no adaptation to their wants. However, they are 9% of profs while the ~~indep. entrepreneurs~~ are 13% (52 1)

~~[illegible]~~

ELT

(Fine description of the [illegible] insurgency, not too sympathetic [illegible] 2)

! CLASS ANALYSIS curious.
Explanations missing

STRANGEST OF ALL: Adds up to 90% (52.)

ULT II

! STRANGE CONFOUNDING OF FACTORY WORKERS & PROFESSIONALS (57-8)
! Rationale: both have "fixed ceiling on incomes." lousy df.

ULT II

! Note: real connex betw professionals & industrials is from "ties within the community." 60-2 -5+

ULT II

! The Professional-Industrial group ~~may also~~ might have been distinguished intensionally by ~~outside~~ 'external occupational reference group.'

#00584

ULT II

! The Professional-Industrial group may have been tabulated ~~together~~ because it's only 9%. (52 1)

ULT II

... interpret this ... possible by ... to ... tendencies or exaggeration of emphasis, that overdraws ... the evidence cited; rather than the faults ... might have for the general sociological community ...

WHAT BOOK'S ABOUT
identifying main point ... content ... past belief ... content ... itself

ULT T

LIST ... of what they describe & do not describe ... study and don't study ...

THESE EMPIRICAL — esp. the ... personality ... for community studies.

ULT ... attempt to state fairly the intents of the book:

1) To ... on ... the "Tocquevillian ... of small-town ... ocracy as a ... self-reliant political organization — the backbone of the country, or perhaps the marrow.

2) To ... instances ... the sociological notion that ... shifts to ... in a more ... systems.

ORIGINS

esp. [illegible]

MENTION [illegible] Hunter, Mills

ULT II [illegible]

Town's [illegible] misunderstanding, ([illegible] ec trends)
its [illegible] age: 'simplicity'

Plainville

ULT II

[illegible] ENLIGHTENMENT'S EFFECTS was also Plainville.

(~~[illegible]~~)

[illegible] BOOKKEEPING' of favors (~~[illegible]~~ 33+, esp 34-2 - 5)

'SHACK PEOPLE' 36+

[illegible] 41+

ULT II

[illegible] applied:

[illegible] people

[illegible] negative reference exemplars

its negating that which is respected

[illegible] a broadening possibility [2993(C)

ULT II

[illegible] Plainville: the school

1) Inappropriateness of curriculum
its having to stick interests

2) ~~[illegible]~~ Vulnerability of school-connected people

ULT II

[illegible] Plainville

EMPHASIS ON CHURCHES

[illegible] IN DENOMINATIONAL COMPETITION

I will quite recklessly propose two statistical techniques that I believe will be of help in these classes of problems. If they ~~[illegible]~~ as described, they do not work as I think they do, it may still be that they can be repaired to embody the same principles. The point I wish to make has to do with the general family of techniques ~~[illegible]~~ that are possible.

A technique for extracting polar cluster ideal-type dichotomies (using a test of association such as the cross-product ratio) from empirical associations in the data.

A technique for comparing ~~differential~~ between-group differentials in the structure of ideas and reference systems (Geistestrukturzusammenhang.)

1) Only computer methods would make this possible, although the principle should be clear from the description.

2) It uses ~~[illegible]~~ (analytically dependent) dichotomous simple variables to derive a complex, dichotomous 'ideal type.' Both are dichotomies only for analytic simplicity, I think. ~~It will~~

3) ~~[illegible]~~ It works in unusual directions. While ordinarily ~~materials~~ data are coded according to antecedent definitions, this allows the 'definitions' — which are only nominal — to be derived from the actual associations in the material. (We may call this inverse definition.)

~~2a) I hope the ~~[illegible]~~ system is correct. However, ~~The density~~ I think the pr~~

3a) Factor analysis is another such technique, but as I understand it it is conventionally used to find the simplest means of expressing a data-space of correlated scales. The cluster method here described ~~would be principally~~ would have applications for the comparing of conceptual schemes which I do not envision for the other method.

4) IT DOES NOT INVOLVE SCALING.

~~The cluster analysis~~

~~The clump analysis has as its main computing stage the~~

The clump analysis is a method for testing arrangements of predicates to seek that with the greatest analytic power (to be defined.) Most of the computations ~~have~~ are performed to seek such an arrangements.

Let us take a simple universe and

O'ZATION

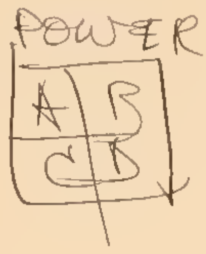
How they see things: ranked notions

~~How~~

1) EXTRAPOLATIONS: SUBGROUP; GROUP AS WHOLE
2) AS SHOWING WHICH ELEMENTS ARE MORE DISPENSABLE (indifferent in placement)

~~AS SHOWING WHICH~~

ANALYTIC POWER OF A GIVEN CLUSTER AGAINST OTHERS



such that

min $\frac{BC}{AD}$

Diverse organizing principles of same cluster

VS

- Applications: ~~neutral~~ salient & neutral ideas & issues from a large q'aire w/ lots of neutral stuff

FOR ~~ANY~~ ANY diff. or criteria ~~ANALYSES~~ OF CLUSTER-CLASS

for => REF PSYCH, especially escape mex such as work

	Red	Round	Sweet	Fruit	~~Animal~~
Apple	✓	✓	✓	✓	
Peach		✓	✓	✓	
Tomato	✓	✓			
Banana			✓	✓	
Onion		✓			
Lemon		✓		✓	
~~Baseball~~		~~✓~~			~~✓~~

☆ IMPOSSIBLE

	?	?
?	A, P	T, B
?	O	L

☆ PERFECT ASSOCIATION

	ROUND	FRUIT ~~RED~~ ~~SWEET~~
~~FRUIT~~ RED	~~A~~ T	A
N SWEET	O	L

To minimize: Xproducts

Class.

The "class analysis" of Springdale is quite unusual for the literature, even considering what they claim to be doing. The chapter, "The Major Dimensions of Class," devotes twenty-four of its twenty-nine pages not to dimensions but to partitions of class, dividing people into a number of groupings on the basis of their choices of economic strategy. What is meant by "dimensions" of class is not clarified until the end of the chapter, when it is revealed that, in their theory, each of the classes represents a strategic emphasis on a different factor of Keynesian economics. (The only citation in the chapter is not to Keynes, but rather a footnote citing, without page reference, Weber's Protestant Ethic and the Spirit of Capitalism.) *

* And apparently these dimensions are not dimensions which permit measurable variation, rather, they seem to be presented by the authors as "pattern variables" in the Parsonian sense, decided one way or the other at a time in the past.

They identify "five" classes, but actually distinguish nine groupings: the independent entrepreneurs, prosperous farmers, professionals and skilled industrial workers (sic,) all in the "middle class;" aspiring investors, economically and socially immobile ritualists (sic,) and psychological idiosyncratics, all in the "marginal middle class"; and three classes simplicfter, the traditional farmers, old aristocrats, and shack people.

These classes, as Vidich and Bensman enumerate them , appear to be clusters of behavior-attributes that have meaning as an organized idea. Thus the independent entrepreneur structures his life around hoarding his capital and stretching his working hours without further risk; the rational farmer watches the clock and uses household appliances to make his available labor go farther, and plough the profits back into the land, herd and buildings. The traditional farmer rises with the chickens and skimps on maintenance. The idiosyncratics, aristocracy and ritualists, do not orient their life to the satisfactions of job and generalized getting, but apprehensively hide their interests elsewhere.

The shack people fall down altogether, and repudiate any thinkable hypocrisy or abstract loyalty.

These organized behavior-clusters, arrayed in an economic scheme, permit the notion of "class" to be defined by Vidich and Bensman as follows:

> By the word "class" the authors mean typical configurations of social and economic behavior which make it possible to distinguish groups of individuals from each other. That is, classes are identified in terms of productive activity, patterns of consumption and other forms of social and economic endeavor. ... In short, the word "class" is used to distinguish particular groups of individuals who exhibit specified social and economic life styles. (21n)

This account at first seems incompatible with the most famous account of class structure, that uncovered by W. Lloyd Warner in his investigations of Newburyport, Massachusetts.* Warner first found a prestige hierarchy

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* As reported in W. Lloyd Warner and Paul S. Lunt, The Social Life of a Modern Community, New Haven: Yale University Press, 1941.

---

that residents of the city could be orderedin a hierarchy of six levels, according to the prestige they received in the community. (Chapter 5) Vidich and Bensman explicitly state that their notion of class has no necessary connection to prestige. (51n)

In fact, however, the two accounts converge. Warner discovered important differentials in consumption patterns (Chapter Fifteen,) as well as a wide variety of social and participational behavior (passim.) If we ignore definitional sequences, we find that social class is in fact associated with life-strategies in both cases. ~~Whether~~ This may be a theoretical issue of interest but the substantive findings from both community studies seem compatible.

2,8/3

The book also has many casual antecedent- community studies tradition whose aside the interesting.

is enumeration of precise insights and suspicions in a (medium) of rich writing

Having mentioned Mills, ...

Moreover, at least one place in the book the authors employ a "shoehorn" technique of matching social phenomena part for part with ideas derived elsewhere. This is the section in which the authors attempt to codify the life-strategies of different community members with the Keynesian economic functions of consumption, savings and investment.

~~While this resemblance may be outside his purview, this direction of This attempt seems to proceed from the~~ This might be more generally phrased as the assumption ~~the technique itself is a trademark of Talcott Parsons. It might be phrased as an assumption:~~ that certain evident similarities among given things can be "ultimately" proven to be precise isomorphisms.

While the This direction of attack → preoccupation of analogy in this manner is entirely legitimate, is the trademark of Talcott Parsons, and repeats itself differently in several stages of his theoretical writings.

2,4/2

~~West found that he would have to expand his original research questions to satisfactorily cover the nature of the town (xi-xii.)~~

Problems of Assertional Structure.

This paper is about the curious and difficult problems that arise within systems of assertion and belief, on the one hand, and explaining or otherwise expressing these systems, on the other. I will attack certain problems of clarity, definition, presentation and agreement, and the topic of 'assertional structure." A certain amount of unusual terminology will not be out of place. I will use the term "structure" for any set of relations among ideas. Thus an "assertional structure" is the whole related structure of things that somebody may want to assert, and "descriptive structure" is the sum of related descriptions of things that someone may provide. These structures, in general, we will regard as being predicational in nature, that is, held together by terms like "is," "is a member of," "contains," etc. Thus we consider them in principle related to the predicational and propositional calculi of logic, especially symbolic logic. However, none of these relations to formal logic will be discussed here.

The most general term for these structures, then, that would cover all the different kinds of structures we are talking about would be "predicational structure." This means that we do not exclude on principle statements like, "X is good," "X is beautiful," "X is valorous," etc., even though these contain terms which, it will be agreed, are not entirely descriptive in content. However, for purposes of this discussion we will stick to the term "assertional structure," because its connotations are slightly more familiar, and because we will be interested in types of contradictions [illegible] generally descriptive and assertional.

An assertional structure is not necessarily a set of propositions. Rather, we are considering it to be an abstract whole, not necessarily "factored" into component propositions. The assertional structure is all the things that may be thought about a given topic by a person, for instance, all the facts and generalizations that are known or hypothesized about a certain subject, art, or a story. Our only restriction is that it shall be reasonably consistent, and not divided by blatant contradictions, so that it may be considered as a unit. Two opposing schools of thought on a topic, for instance, could not reasonably be considered as a single assertional structure.

There are a number of important ways that an assertional structure may be factored or "decomposed"--that is, broken down into components-- and it is one of the intentions of this paper to clarify the differences among them, the uses of them, and some difficulties that arise from not understanding their different functions. Each of these is a method of taking apart the assertional structure into other kinds of things, some of these things we will also call "structures," for simplicity.

1) Propositional structure sets forth the assertional structure in a series of propositions. However, this may be done in any number of ways; for instance, by establishing

2) Deductive structure, which sets forth the assertional structure in a concise, parsimonious form, and extracts more complicated "facts" about the assertional structure by deduction. (Some borderline cases might be called "deductive structures" even though they slip in unstated premises and go beyond the original axioms. Similarly, we can call something a deductive structure even if it is an unsuccessful one, where nothing really follows.)

3) --the way assertional structure is set forth to show to someone-- However, presentational structure may not be deductive. That is, a number of terms may be introduced, and their interrelations stated or hinted at in terms of resemblances or connections which do not deserve to be called a part of the assertional structure. Presentations of structures of this type may be things no one would want to make precise. In this case the problem of presentation has introduced connections which are not a part of the assertional structure as such.

It should also be noted that a presentational breakdown of an assertional structure does not have to be in the form of a series of propositions. Here we should also include pictures, tables, graphs, charts, and even the vague stick or whirlwind drawings that professors often put on the blackboard to represent dichotomies, continua, clusterings or relationships. (The extent to which these form a part or summary of an assertional structure, or merely give a vague picture or impression of it, will of course vary.)

We may also distinguish several kinds of order that may pertain among components of an assertional structure. The most general is *presentational sequence.* If the parts of the assertional structure are presented in sequence, rather than all at once, in a flash or single display, it obviously has a presentational sequence. This may be a random presentational sequence, not suited to making it clear to anyone, and with only a jumbled order of mention of which its facets are. However, if the different parts of the structure are presented in a systematic way, by which one item introduces another, it may be said to have a *derivational sequence*. This derivational sequence may, naturally, still be offhand and haphazard, or it may be tightly knit together. If it is tightly knit, it may indeed be a deductive sequence, the kind of sequence we find in a deductive structure. One extremely important unit part of a derivational sequence is the definition, by which one or more terms are used to give the meaning of another. While in general definitions are supposed to be precise, there is obviously great variation among them in this respect, and in a very loose, offhand presentational sequence imprecise definitions may be welcome because they give immediate insight.

I have introduced these terms at length-- in a long, loose presentational sequence-- in order to talk clearly about a number of matters that tend to bring great confusion and disagreement. These matters are important across the board in a number of very important areas: scholarly investigation and exposition; information retrieval, library structure and the social organizations, like learned journals, that disperse scholarly material; and the problems of teaching, learning and the organizations that exist to make them possible. In this paper there is hardly room to treat any of these matters; but the views to be presented here should give the reader leads as to how they might be applied there. The treatment here must also be abstract and without examples, even though these exist in profusion. This is partly because of the lack of space, and partly because this treatment, while not very original, is still not very fully worked out, and the main effort has necessarily gone into its general formulation rather than into its application.

These have to do with the proper presentation of assertional structures, and of factoring relations within them. To begin with, I would like to point out the interesting fact that the same assertional structure may be presented in a number of different ways, while different assertional structures may be presented in the same way.

The same assertional structure may appear in a number of different presentational sequences, even though all the connections within the assertional structure are the same. This may be true even when the derivational sequences are precise and deductive. In mathematics, I understand, it is commonplace for the same entity to be defined in different ways by different writers, or by the same people for different purposes. One example of this from basic statistics may be found in the treatment of r, Pearson's product-moment correlation coefficient, by two authors of elementary textbooks. r is defined by McNemar [Psychological Statistics, 2d Edition, p. 118] as the sum of $x_i y_i$ divided by N times the standard deviation of x times the standard deviation of y. That is, roughly speaking, it is defined in terms of the measurements of individual items and the standard deviations of the two populations. On the other hand, Freund [Modern Elementary Statistics, 2d Edition, pp. 327-8] defines it as a measure of the improvement in the description of variables on two axes achieved by fitting a least-squares line. The conceptual difference between these two presentations is enormous. As a student of statistics, comparing these two texts, I was able to make no sense out of the first derivational sequence but gained considerable insight from the other.

Not only may the same assertional structure be presented in different ways, but different assertional structures may sometimes be worked into the same presentational sequence. This is sometimes true, for instance, of books which survey comparative theories of some subject, presenting parallel explanations of the same phenomena. For instance, Hilgard's Theories of Learning, in covering the learning theories of Hull, Tolman and Skinner, first summarizes a view and then shows how it covers the same series of problems within the field.

What I have meant to point out in some measure by these two examples is the actual arbitrariness that exists in the breakdown of an assertional structure, for whatever purpose it is done.

With this in mind, I will quickly handle several important topics. These are the problems of "deductive models," in argument and in science (and other systematic propositional endeavors;) problems of teaching and display; the problems of summary for indexing, retrieval and finding connections; and problems for "styles" of teaching at all levels, from elementary to professional education.

For the present context I would like to depart from common usage and lump together under the name of "deductive model" certain kinds of prescriptions both for argument and scientific procedure-- taking the term "scientific" loosely, too. The deductive model holds that in presentational discourse one must proceed in a deductive sequence: set forth basic terms, and carry out the argument precisely according to the canons of deductive logic. In the "argument" deductive model, the discourse assertional structure may have to do with the need for arms control or the number of angels that can dance on the head of a pin, have an interlocutor who must be answered at intervals, The "argument" in an article is merely a presentational sequence; the argument [illegible] person may In scientific procedure the proponents of the deductive models hold 1) that research must proceed according to prearranged "research questions" set forth in deductive sequence from the current concepts in the field, and 2) that a field does not become "scientific" until its findings can be set forth in a determinate deductive sequence.

While others continue to discuss the deductive model in science in a much more technical level, I would like to state some very simple objections which I think may be commonly applied to both these deductive models.

In the first place, I would like to make it clear that there can be no objections to the request for a precise, consistent and unambiguous assertional structure. It is only reasonable to ask anyone with a thesis to present to actually present it, without mis-direction, shifting meanings or crucial connections omitted. Similarly, it is reasonable to ask that a researcher know as much as possible about what he is doing, and ask that "knowledge" in any field be possible to set up with some degree of precision or clarity. ... is the insistence

However, the following objections apply to the deductive models:

1) Deductive structure is not necessarily unique. (This is only worth noting when someone demands the definition, the orienting relationship, the deductive sequence.)

2) More importantly, there may be lacunae in the structure: gaps which the proponent is unable to fill in an otherwise reasonably precise structure. These may be gaps in understanding, a "sense" of connection between points, parts of a subject, or parts of a view, without precise understanding sufficient to make it more explicit. Or the gaps may be gaps in knowledge: unknown parameters, unknown relationships, unsettled business. In many cases these do not detract from the general assertional structure.

3) Mistakes in deductive formulation are easy. In many cases it is a simple matter to set things forth at length and discursively, with repetitions and tautologies. (The worst case, it has always seemed to me, is the apparent habit of Frenchmen [and others] of emphasizing and glorifying any assertional connection by calling it "definitional.")

4) In many cases new information, evidence, arguments, etc., may totally wreck a deductive structure by invalidating more basic "points," or combinations of them. As has been pointed out by such authors as Braithwaite, Duhem and Scriven, the changes that need to be made in the deductive structure may be extensive and leave troublesome options. I think that if we remember that it is not any particular deductive structure, but rather the entire assertional structure as a moving entity that must be adjusted, we may circumvent a great deal of difficulty.

There may still be important problems in adjusting the assertional structure to fit its new contents, but in many cases to discard the hierarchical deductive sequence will probably simplify the problems of adjustment. (I am omitting here a number of difficulties that stem from hierarchies of generality, when these clearly exist in a field. However, I am suggesting that apparent hierarchies of generality are not to be too readily seized upon, by someone seeking derivational order, for it may prove to be premature.)

Several similes may make this exposition a little more vivid. *2, 5 The man who makes the structure of his argument clear, without concentrating so much on derivational sequence, is like the man who draws a map instead of giving you directions in terms of left and right turns. The left-and-right-turn series will probably get you there only if it is exactly right; the map may get you there even with many mistakes. Similarly, the task of creating and maintaining the assertional structure of a scientific field may be easier without insistence on deduction in much the way that it may be easier to build an object (like a model or a tower) if during construction you can ignore the way it has to be hung or erected, and turn it over continually to work on another side.

The problems of summarizing and of indexing the contents of a field, of a work, of an article-- of any assertional structure-- are manifold. An approach which has at last become discredited is that exemplified by librarianship of other decades. The Dewey decimal system, and the Library of Congress cataloguing system, each sorted all the world's interests into a single linear sequence-- with clever shadings of similarity and propinquity-- and assigned a number to what their authors thought to be every possible kind of thought. By supplementing this with some file-card cross-indexing, it appeared for a long time to be simply the burden of the researcher to find what he needed by using these methods. Naturally, it will always be, ascriptively, the responsibility of the researcher to do the best he can to track things down. But it is by now woefully clear what limitations these systems have placed upon finding filed material. In the face of modern technology, which has provided machinery for indexing in any possible quantity and manner, the real philosophical problems of abstracting and categorizing fields have become clear. It is now absurdly clear that any linear sequence of arraying subjects omits important connections, and that the relevance of any categorizing method is in the nature of the academic process subject to a decay function.

material.
simple relational arrays for categorizing and finding.

This collection of problems-- the storage of ideas and information, and their subjugation to ready access-- is called "the informational retrieval problem." But its ~~problems~~ difficulties deal not only with/ in fact, informational retrieval also These problems of/ preceding ~~[illegible]~~ bear an important relation to the/discussion of assertional structure.

It should be clear that if sufficient time, effort and money are devoted to categorizing and indexing, it is possible to keep track of work within a given "area" to a certain degree of fineness. The only catch is that that the "area" has to have a name, or a category-- and one of the most important problems in scholarly progress, the finding of resemblances, connections and isomorphisms between previously unrelated things, is untouched. This matter is left to chance/insight, the reading or/experience of individuals in more than one field, or other kinds of luck. This problem has been noted by both the General Semanticists and the General Systems Theorists.

While I can make no specific proposals here, I would like to point out that certain advances may be made in this field by an examination of the nature of assertional structure. For it is these new relationships that need finding are in resemblances among whole assertional structures, [assertional structures] can best be pictured ~~for this purpose~~ [mentally] as amoebas, or clouds, or similar slowly changing things which from time to time remain invariant.

If any repetitive, mechanical method can be found for analyzing assertional structures as wholes-- in a way that could separate patterns among connections as well as merely cataloguing them, for example by translation into propositional calculi-- it might be an important step in this direction. Of course, it may be that the importations of ideas from one field to another-- for instance, the adoption of the homeostatic model of Walter B. Cannon and A.J. Henderson to Talcott Parsons' idea of the social system-- may require some kind of associational and configurational analysis not simply adaptable to machine processes. Similarly, the number of "configurations" within a set of relations is, in an important sense, a really stupendous number of permutations of subsets of these relations. The question, then, is really whether some wieldy kinds of such configurations can be isolated which will in any way simplify or expedite the process of creative analogy between assertional structures which I have described. Let us note that this need not be a simple matter of machine methods; even if it could be performed by highly trained clerks on a nine-to-five basis, or [in fact done by] by highly talented people on a fee basis, it would almost certainly be worthwhile.

The problems of summarizing scholarly works for their transmission to students at the college level and beyond, and to professionals who want merely to find out what is in a work, is similarly closely related to the difficulties of assertional structure. To abstract those connections which are "most important" within an assertional structure is virtually impossible. The most obvious difficulty stems from the different interests of different people who might want to know what is in the work: sociologists, for example, often extract data from others' works for purposes entirely different than those of the original authors; one may want to learn specific points, or the general range of subjects covered, or the general character of the models employed by the author. [Any number of summaries, each provides] ~~Each of these is~~ a legitimate abstraction or excerpt from the original assertional structure.

But in the area of informations-retrieval, considerable advances on this problem will ~~probably~~ [eventually] be made by making different summaries of a work available to people according to their interests as they present them to the mechanical file. ~~But~~ Within the academic world as an organization, the problems are [of abstraction from assertional structures are] somewhat different; I think it is more than just an icy remark to say, for instance, that reading original source material is not necessarily healthy for the student who wants to pass exams. ~~For~~ It is rare that a book or an article maintains over time the same balance of interests and emphasis for the people who read it that the author originally put in. The student who is not in contact with the current opinions of the source-work is in danger of noticing and emphasizing things which are not of current interest. In the case of subtle and comprehensive authors, for example, a Simmel or Max Weber, there is a real danger of finding things [which no one else knows about and which scarcely do help on examinations.]

For these reasons the informal aspects of graduate training-- especially the casual (perhaps careless, disparaging or cynical) remarks made about works in the field, which no one would want or really dare to write down, are among the most important in instilling for the student a sense of the current balance of opinion. It is interesting to conjecture as to whether "true" graduate training could be accomplished at a distance if these things were put in writing.

The problems of assertional structure have a bearing on elementary and intermediate education as well. It is here that derivational order has been most crudely and mistakenly frozen. For example, it has been the convention virtually for centuries to teach mathematics in the following sequence: arithmetic, algebra, geometry, higher algebra, trigonometry, calculus and beyond to special topics. All too recently it has been discovered that the assertional structures of mathematics can be broken down into other orders with far more interest and appeal to the student: for instance, the recently introduced sequence that after algebra goes to set theory and matrix algebra (Kemeny, Snell and Thompson, <u>An Introduction to Finite Mathematics</u>) and the more radical sequence which starts pre-school children on group theory <u>before</u> arithmetic, expecting to instill insights about manipulations and transformations that will make arithmetic (if that comes next) more easily subject to insight.

These new derivational structures-- and I believe we can only expect a great and beneficial proliferation of them soon-- will probably have a great effect on loosening the sequences of presentation which are forced upon students in the earlier grades. It is quite possible that the kinds of fields that interest different kinds of people have been unnecessarily determined by the compatibility of their personalities with the texture of insight and success associated with particular derivational sequences in teaching. Thus mathematicians have often seemed to literature majors to be crabbed and narrow people, because they have seen crabbed and narrow people respond well to the teaching-sequences that have been associated with mathematics in the past: repetitive and reiterative presentation of the same points without global connections, or alternative explanations, or frequent insights that make connections to a distant part of the assertional structure. Conversely, those accustomed to careful sequential learning of material in tightly-knit, carefully organized segments often see people in the more humanistic fields as uncontrollable because of their insistence upon large insights and far-fetched connections. It is to be hoped that future teaching machines, with more intricate hardware, will be able to escape the fixed derivational structure and permit different styles of learning that vary with personality.

★1 ~~Similarly,~~ One of the most vexing features of scholarly exposition, especially if it concerns far-reaching theories, is the assertional structure that <u>will not assign priorities</u>, and treats every assertional connection as central to the exposition. The presentational style of Talcott Parsons is noteworthy in this regard.

★2 somewhat different, for they tie in with ~~the~~ this world's informal social organization of a reward-system.

**,2,5

Some Problems of a Notation for Sociology

It has been a source of distress to most sociologists, at one time and another, that there is not common agreement in the field as to how even the most terms are defined, and there is not common agreement about what even the most common terms refer to. It is often found distressing, too, that disagreement seems to increase for less common terms, and that there seems to be little slowdown in the coinage of new ones. While it would certainly be instructive to catalog some of these differences, and examine the occasional neologisms for convergence of interest, this task is so enormous that no effort to do so here seems better than any half-hearted attempt. I would like to discuss, however, one kind of approach to simplifying what appears from time to time to be a Babel. This is the investigation of possible benefits which might come from a generalized general, conventionalized notation based on insight into the problems of assertional structure.

Notation has been a point of interest in sociology for a long time. Except, perhaps, for the whimsy or glamor associated with neologisms, many sociologists have pointed out that good might come from adopting some standard notation using simple symbols; for example, as in algebra, letters of the the alphabet. Pareto, for instance ~~only one example:~~

" To avoid in these volumes the danger, ever threatening in the social sciences, that meanings of words will be persistently sought not in the objective definitions supplied but in common usage and etymology, we would gladly have replaced word-labels with letters of the alphabet, such as a, b, c ... or with ordinal numbers; and that we have done for some parts of our exposition. We have refrained from doing so more often in fear lest our argument become altogether too tedious and obscure. So here we follow the example of the chemist who continues using the word 'water' but gives it an exact meaning."
(The Mind and Society, Vol. I, p. 64.)

Since most people will agree on the abstract possibility of a standardized symbolic notation, then, let us look at some of the general problems that confront having such a notation, and giving sociological terms the "exact meaning" that "water" has.

First of all, it should be noted that there is not precise agreement in sociology on what the assertional structure of the field really is. Reformist, cool disagreement is intrinsic to the social organization of any field. But while there may be disagreements among schools in such subjects as chemistry, in chemistry we find simple "basic" assertional structures on which everyone agrees-- for instance, the propositions of general chemistry which state the communalities of the Periodic Table. In sociology there seem to be overriding disagreements as to what the basic propositions of the field really are, 7 ☆2, 8

These differences, in turn, appear to group themselves around major differences between schools of thought.
~~I could hazard that the difference between sociology and chemistry in this regard~~

However, let me try to divide the problem of agreement into two components. It is clear, I think, that sociologists agree generally ~~and the importance of this their combin~~ ~~upon a large number of statements,~~ ~~statements of a very general and imprecise kinds.~~ upon a large assertional structure, and the importance of this belief-system to sociologists' thinking quite effectively distinguishes them from the rest of the educated public. However, this assertional structure is best broken up into statements of a very general and imprecise kind, such as only are emphasized in introductory courses. For instance: "Norms are very important in the determination of human behavior," "Gratifications within a primary group affectively structure the kinds of gratification needs for that the infant carries with him as he grows older; gratifications within the primary group continue to form an important part of the sum of an individual's gratifications throughout his life." To the sociologist statements of this kind seem true, but trivial almost to the point of vacuity. However, the points that will interest him are more usually those which crystallize and organize entire points of view. The overriding emphases that organize the assertional structure of one school as against another seem much more important in generating problems of interest for research.

The sociologist feels, probably sometimes, in trying to make the field seem unanimous to the beginning student (by presenting the more simplistic kinds of propositions,) and this may lessen his awareness that the basic assertional structure is held in virtual unanimity. It is in the vagueness of its

application and its imprecision at prediction that he feels discontent-- though, of course, rightly.

It should be seen from the foregoing that any attempt to create a conventionalized system of agreeable notations, must express the agreement and contain the disagreement, or be foredoomed. (This may have been a reason for the dearth of references to Dodd's S-System, referred to by Bierstedt in Gross [ed.,] Symposium on Sociological Theory and developed in The Dimensions of Society [New York: MacMillan, 1942] which is unfortunately not available to me at the present time.) Such a notation should be flexible, lending itself to divergent treatments by different workers, and compatible, such as to sustain interest and be of genuine use to a number of people over a period of time. While other requirements might be suggested-- for instance, that it be amenable to deductive treatment or compatible with the propositional calculus-- I will not treat those possibilities here, but concentrate on the other two.

It seems to me that basically some greater agreement on terms could come about through such a notation if the differences of assertional structure held by different people can be factored out. One crucial respect in which these differences have caused trouble is in differences of derivational direction: that is, those parts of a term's meaning which are considered to be "defining" vary from sociologist to sociologist. "Defining" characteristics, in this loose sense, may be more general terms whose combination totally determines the meaning of the term defined (Brother: a male sibling), terms whose meanings in combination partly determine its intensional meaning (Human Being: an intelligent anthropoid,) [illegible] total or partial determination of its extensional reference (Nathan Pusey: President of Harvard; Harvard: an area of Cambridge.) Other types of "definition," which are further from the philosophical meaning of the term, are statements of what a thing is contrasted with (Boy: not a Girl,) and statements which definitionally "anchor" something to be discussed with some particular empirical phenomenon (Reference Group Behavior: the apparent influence upon subjects' behavior which has appeared from the analysis of these questionnaires),

The notation as it is emerging from this discussion would then have these characteristics:

1) It would isolate the "central" assertional structure of a writer-- that which he is in particular presenting for other's examination-- from the peripheral definitions, etc., which he regards as less important.

2) It would, however, make it possible to put these other connections in the limelight themselves for examination, in the same manner.

3) In the event that someone wishes to present a global system of assertional structure, it would permit him to isolate sections of it for separate discussion; and permit others to re-combine aspects of it which he had not isolated.

4) It would permit an author to emphasize those definitions and derivational connections which are important to his view, and slight those which are not.

5) It would permit authors to agree on similar assertional struc tures while segregating their differences, yet keeping these differences available for examination.

6) It would permit an author-- or everyone-- to make "definitional" or derivational changes in the assertional structure in the light of new evidence or argument. Such a change would be poss[illegible] with less collapse than is likely to occur with the ~~disconfirmation of~~ when an axiomatic theory-- a deductively organized assertional structure-- is disconfirmed.

7) It would permit other theorists to find comparabilities and substitutabilities among parts of theories that ignore particular choice of terms.

★ I would attribute this, not to anything "wrong" in the field of sociology [illegible] [illegible], but rather to the fact that in sociology there [illegible] no [illegible] discoverable and regular structures [illegible] task.

These demands may seem to be sweeping, but they follow from the general views of assertional structure that I have outlined. Whether they can in fact be comprised into a usable notation will not be established here. However it seems to me that we have implicitly named three kinds of components that a discourse in this notation should have:

a) Main propositions. Presumably these would furnish the bulk of the theoretical discourse to be set forth.

b) "Definitions" for the terms: that is, a brief listing of the concepts which the worker has in mind.

c) Order-of-derivation statements, which state the kind of derivation involved. That is, of the types of definition mentioned above, which ones apply to the present derivations of the terms; and if the present terms are a mixture, a statement of [whether they are] what ~~kind of~~ a mixture.

Thus there would be three kinds of statements, a, b and c, as above.

Presumably the bulk would be of type a; but for all terms introduced, there would be b and c statements, to any degree of fineness [the author may require] ~~desired by an author~~. I will give a brief example, using not characters but phrases, to show the kind of tabular array this would have, even if it were converted to short symbols. The statement: "norms provide an important structural component of ~~human behavior~~ [action]."

NORMS: derivations of term:
Concepts toward which people have psychological reference (Abstract)
Regularities in behavior of people in evolved cultural setting (Extensional

IMPORTANT: derivation of term:
Accounts for large unspecified amount of variance (Rough

ACTION: derivation of term:
Behavior taken with reference to behavior of other (Full intensional
Use of term by Talcott Parsons (Intensional equivalent.

"Norms provide an important structural component of action."

Obviously this example is cumbersome and somewhat of a nuisance. ~~However,~~ This is a small statement, as well as trivial, it does not get underway toward the exposition of anything interesting. However, we ~~cannot~~ expect that, if scholarship continues as it has, the use of systems of this type would only take place at intervals in scholarly exposition, and in summary form. That will make clearer ~~the content~~ as a whole the connections that an author has introduced piecemeal. The question of whether such a system could be practical or convenient is, of course, another matter. I have merely suggested that to separate a superstructure of definitions which are labeled as to type might make expositions and priorities clearer in contexts that sometimes need more clarity than they have.

Brief Notes on the Academic Organization of "Fields."

An academic "field" is a cluster of things on a number of levels. Some of its components are:

1) A body of fiddings, opinions and techniques related to a rougbly specifiable series of topics.

2) A number of people engaged in tosching, investigating and thinking about these topics. 3) A set of organizations, usually one to a university, which give sttention to sucb a sorios of topics, and and whose identity is established, in lsrgo part, in contrast to othor fields as negstivo reforence groups. It is with this last aspect that I will deal hore.

It seems to be generally agreed that the ancient world knew only one fiold--- slthough this is obviously not so if we include the professions, which we will below. At any rate, <u>philosophy</u> is by convention thought to be the undifferentiated original field from which all others sprang. In the Middle Ages thore were by convention sevon liberal arts: fields: the four msin subjects, the <u>quadrivium</u>, and the <u>trivium</u>, which was not so importsnt.

Today, bowever,

ASX & PSX

Explanation of what this is about; jargon I will use.
Will attack problems of clarity, agreement, definition, presentation, agreement.

PSX (ASX) as reasonably consistent collection of terms & presentational connections among them.

DERIV STRUX
→ DEFINITIONAL ~~STRUX~~ CONNEX
PRESENTATIONAL SEQS & CONNEX

PROBLEMS & POINTS CLARITY ~~[illegible]~~ FIERCELY IMPORTANT; cf. French philos.
Dif Deriv. Strux, same ~~connex~~ PSX etc. [illegible] example) ≡ in this case Pres Seq.
Dif PSX, same presentational seq. (Course on Comparative Theory)

Problems for teaching & DISPLAY (inversion etc.)
Eg. of MATH TEACHING
Teaching anything
Tie-in with personality styles. Insight vs repetitive forcing (which prob only works w already intuitive guys anyhow)

~~Problems for scholarly exposition~~
~~Guys can't~~

Deductive model?
If you mean PSX as clear as possible, fine.
BUT may not be finished
model not unique.
mistakes in axiomatization easy
(compare instructions [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
or a map [illegible] [illegible] [illegible] [illegible] [illegible])
correction through new evidence
such a nuisance to fix
PROBLEMS ARE OF THE WHOLE SET OF RELATIONS
WHY PIDDLE AROUND? ('glanishing')

Summarizing contents of a work, a field. → implications for college work & training.
~~Tie-in with style~~

Problems of indexing
Problems of finding resemblances

NOT

Why no common definitions in Syy.? WHY CAN'T WE SETTLE?

Ans. These are intrinsic & inherent problems. But it is certainly conceivable that we might help things.

HELP BY ~~combination &~~ steps which combine facts of derivation w ~~facts~~ means of notation.

EVERYBODY'S ASKED FOR NEW NOTATION

Many have introduced neologisms & symbols.

LET US SEE WHAT IT WOULD REQUIRE.

.

.

.

Open-weave & changeable in many directions

Flexible, compatible.

NOT

Why no common definitions in Sys.? WHY CAN'T WE SETTLE?

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.
.
.

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Flexible, compatible.

[Ac. Soy]

WHAT IS SAID & HEARD & READ
EXTRACTION & ABSTRACTION, SELF & OTHERS } game theory

ORIGIN OF FIELDS

Ac. World a curious congeries of organizations, bounded by highschool & other possible careers

Learning (particularly of un professional) much more a matter of having & learning attitudes & romance etc. (than from hard marked subjects of course.)

WHAT ONE SAYS ABOUT ONE'S OWN WORK,
WHAT HE

3) A general interview-sample of the whole town should be used here, with the general intent of testing the relations between unanimity, measured by conceptual organization, frustration and actual contact with the negative-reference exemplars. ~~In general,~~ city and the sh

3) ~~Element 4~~ The chief positive idea-congeries of psychological reference are Springdale itself (a place of simplicity, friendliness and virtue) and "folks" (clean, pleasant, unpretentious yeomen.)

The corresponding negative concepts are "the city" (inchoate sinkhole of anonymity and degenerate worldliness and vice), and the shack people (raucous, voluptuous, irreverent loafers.)

strong internal organization and a compelling

it may be that

congeries

in terms of analytic power

actually thinks and behaves

Especially, we would like to

4) increases the way that

people resort have described

and the

We assume here that different kinds of contact with negative-reference exemplars will have different effects on the clustering and organization of the reference concepts, although there will be complications depending on the level of frustration. Roughly, we should expect clustering of ideas and behaviors to become more typical (according to the Vidich and Bensman types), and ideas to become more tightly organized, as a function of increasing cognitive dissonance. Conversely, when cognitive dissonance occurs (as in amicable, equal relations with the shack people) the individual must cope with the dissonance by either changing the extent and direction of ~~psychological~~ affiliation-disaffiliation, ~~to remain/are constant~~ or changing the clustering and organization of their idea-congeries.

Some of the questions we should be able to ask of these data are the following:

A) Does frustration increase the positive and negative polarity of these concepts for the individual, and his scale of affiliation with some, disaffiliation from the others?

B) Does pleasant contact with the shack people and the city make the clustering less typical (defining "typical" in terms of analytical power, as above) in order to cope with the ensuing dissonances?

C) What is the relation between organization of negative-reference concepts and frustration and contact? Vidich and Bensman would predict that if frustration increases the conformance of idea-congeries to their ideal types and their organization, contact (if amicable) will increase rough exceptions in mind and behavior

~~BIG SPACE~~

However, disagreeable contact will increase organization by simply reinforcing the image

be difficult, particularly with regard to indices of frustration. But this should be possible along the general lines described here.

[BIG SPACE]

Obviously these are not research questions about the association of two variables in a given universe, as is traditional for the typical "research question" of classical sociology. Rather, they are investigations of "concept validation," testing-- as is particularly reasonable on the examination of Vidich and Bensman's thesis-- whether their variables have the most analytic power.

We have here looked, very crudely, at some kinds of variables and types of analysis that might begin to make clear and testable theories that involve complex clusters of behavior which have as independent variables certain organizing principles in the mind. If the tone here has been critical of Vidich and Bensman, it is because of the book's subtlety and intrinsic interest, and the extent to which their analysis involves the reader.